FEASIBILITY STUDY FOR AN HISTORICALLY CERTIFIED PROPERTY IN HAVERHILL, MASSACHUSETTS

by

Robert Ritt Ream

Bachelor of Arts
City College of New York
1970

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF
MASTER OF SCIENCE
IN REAL ESTATE DEVELOPMENT

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SEPTEMBER, 1986

Signature of Author_____
Robert R. Ream
Department of Architecture
August 16, 1986

Certified by_____
James McKellar
Professor of Architecture and Planning
Thesis Supervisor

Accepted by_____
James McKellar
Chairman
Interdepartmental Degree Program in Real Estate Development

TABLE OF CONTENTS

FEASIBILITY STUDY FOR AN HISTORICALLY CERTIFIED PROPERTY IN HAVERHILL, MASSACHUSETTS

by

Robert Ritt Ream

Submitted to the Department of Architecture on August 15, 1986 in partial fulfillment of the requirements for the Degree of Master of Science in Real Estate Development

ABSTRACT

This thesis analyzes the market and financial feasibility of a conversion of an historically certified factory building located in Haverhill, Massachusetts into residential and retail use. The site is presently optioned by a developer located in Cambridge, Massachusetts.

First, the property and the proposed development are described. The historic nature of the property and the neighborhood are presented. Second, the demographics and economy of Haverhill are analyzed. The results of a market study are used to establish rent levels and potential sales prices. It is concluded that the project is not feasible as a condominium development at this time. Third, a financial analysis of the project is presented. A computer model is used to determine the financial returns of the project using conventional financing and public subsidies. The effects of the currently proposed tax reform measures are included in the analysis. It is concluded that the project requires public subsidy in order to be feasible.

Thesis Supervisor: James McKellar
Professor of Architecture and Planning

CHAPTER 1

INTRODUCTION

This thesis analyzes the feasibility of converting an historically certified factory building located in Haverhill, Massachusetts into residential and retail use. The buildings under study are currently optioned by a Boston developer who has no prior development experience in Haverhill. The developer was attracted to the city of Haverhill because it has been trying to promote its historic riverfront as a likely site for residential development. So far, very little market rate activity has taken place there. The developer will be testing a new market and will be linking the success of his project to the city's revitalization efforts. The developer must make decisions in a climate of uncertainity caused by proposed sweeping changes in the tax treatment of real estate. This thesis takes the project through a market analysis and based on that information, models the impact of possible tax changes and various ways of financing the project.

Chapter One describes the existing property and the proposed rehabilitation. The surrounding neighborhood is described and a brief history of Haverhill is presented.

Chapter Two analyzes the Haverhill market for both rental and condominium units. Demographics and an outline of the region's economy are presented and discussed. The results of a market study are presented and conclusions are drawn about the most likely market for the development.

Chapter Three develops a computer-based model to analyze the financial feasibility of the project. The project will first be analyzed using conventional financing under the existing and the proposed tax law. The project will then be analyzed using public sector subsidies under the existing and the proposed tax law. Using the same financial model, the effects of the proposed tax reforms on the financial returns will be determined. The chapter will conclude with a recommended course of action for the developer.

DESCRIPTION AND EXISTING CONDITIONS

The property, consisting of three buildings which are connected by enclosed wooden walkways, is located at 66-72 Washington Street in Haverhill, Massachusetts. It is listed in the National Register of Historic Places Inventory as The Goodrich, Porter and Kimball Building. Built in 1882, as a shoe factory, these Romanesque building have brownstone carvings, large decorative terra cotta tiles and a considerable amount of patterned brickwork (see Exhibit 1). The largest building fronts on Washington Street and is five stories high. The other two buildings are both three story structures and are located in the rear of the property. The buildings contain about 60,000 square feet of floor space. Presently the buildings are unoccupied and secured.

The site slopes downward from Washington Street and is bounded by the Merrimack River in the rear. The river will provide attractive views for apartments located in the rear of the development. A seawall which was

constructed by the Army Corps of Engineers in response to a devastating flood which occured in 1936, rises about eight feet above ground level but is not high enough to interfere with views from the buildings.

DEVELOPMENT PLANS

The proposed development would convert the buildings into 66 apartments consisting of 30 one bedroom and 36 two bedroom units. Apartments would contain an average of 625 square feet for the one bedroom units and 825 square feet for the two bedroom units. The ground floor of the Washington Street building would be converted into 3000 square feet of retail space.

The slope of the site would allow some parking to be provided beneath the buildings. Access to the rear of the site is provided by an alley which enters from Washington Street. The developer plans to purchase an open lot immediately next to the rear of the property for use as additional parking. Based on his initial negotiations with the owner, the developer believes that this lot could be acquired for $165,000. Consideration was given to building structured parking but this idea was abandoned due to cost considerations.

Consideration was also given to building additional units on top of the existing buildings. These units would be sold off by the developer as soon as they were completed and the profit used to reduce the developers equity contribution. It was later determined that this could endanger the property's Historic Certification (discussed below), which would have adverse tax consequences. Also, the cost of constructing the new units was found to be prohibitive since the roof of the existing structures would have to be

strengthened in order to support the additional weight. [1]

The developer plans to take advantage of the river front location by constructing a walk-way on top of the existing sea-wall. Access to the walk-way would be provided by stairs to be located in the rear of the property. This reinforced concrete deck would provide the property with a link to the river which is now blocked by the seawall.

SITE CONTEXT

Haverhill is located 33 miles north of Boston and is 1.5 miles from Route 495, the area's principal highway. Commuting time to Boston is about 45 minutes via routes 495 and 93. An MBTA railroad stop is located about 100 yards from the property and provides regular service to Boston's South Station. Travel time to Boston by rail is also about 45 minutes.

Two colleges are located in Haverhill: Northern Essex Community College, a two-year, state-operated school which is the largest community college in Massachusetts and Bradford College, a four-year private college. There is also a regional vocational-technical high school, Whittier Tech.

The largest employer of Haverhill residents is AT&T Technologies in the neighboring town of North Andover. AT&T employs 3,500 city residents in its equipment manufacturing plant. Haverhill has recently used a $2,000,000 Urban Development Action Grant and a $10,000,000 Industrial Revenue Bond to attract Wang Laboratories to a site located near to route 495.

THE CENTRAL BUSINESS DISTRICT

The CBD is located along Washington Street, next to the north bank of the Merrimack River. It is bounded to the east and the west by the city's two main bridges, the County Bridge and the Bridge Street Bridge. (see Exhibit 2)
The property is located in a section of Washington Street which is one of the more depressed parts of the Central Business District. Many of the buildings are still abandoned but in recent years small retail operations have been attracted into the neighborhood. These businesses include a sandwich shop, a framing shop, the offices of the local newspaper, a small restaurant, and a martial arts center. Two realtors and a used office equipment store are also located in the same block. Generally, the businesses are of the type which do not require a large sales volume in order to survive.

A large Section 8 Elderly housing project, The Phoenix House, is located nearby. This project, completed in 1982, is also a conversion of a former shoe factory building into apartments. The property appears to be well managed and provides attractive rental apartments, some with river views. It is one of six Section 8 Elderly projects located in Haverhill.

A section of the central business district located several blocks from the proposed project was demolished in the 1960's as part of the federal Urban Renewal Program. This area is still vacant except for a large two-story parking facility. A development group, Crysen Limited Partnership, had planned to develop the site as a downtown hotel. This project was cancelled in July,1986 when another developer, A.J.Lane & Company of Framingham,Massachusetts, announced plans to build a 350-room

hotel/motel complex next to the city's eastern-most exit of Route 495.[2]

During the past ten years, Haverhill has received about $24 million in Community Development Block Grant funds.The city has used $1.1 million of these funds to upgrade the Washington Street infrastructure. Improvements include the installation of brick sidewalks, street improvements, "period" lighting, and a 50 space public parking lot.[3]

THE MERRIMACK RIVER

In many other cities in the Merrimack Valley riverfront property has escalated in value. Haverhill's efforts to link the CBD to the Merrimack River have been frustrated by the seawall which was constructed by the Army Corps of Engineers. The seawall physically separates the city from what is now a relatively unpolluted, attractive natural resource. Pedestrians on Washington Street are isolated from views of the river by the seawall. The seawall has protected the city from floods but has also severed the city's historic link to the river.

Several planning studies have recommended that Haverhill capitalize on its unique location on the Merrimack River. In 1981, a study of the Haverhill riverfront was done by the Conway School of Landscape Design. Among other things, this study recommended that the city re-orient the CBD towards the river by developing a continuous riverfront boardwalk. Shops and restaurants along the boardwalk would extend commercial activity into this area and provide a needed link to the river. [4] To date, there is no evidence that the city plans to move in this direction.

Historically, the river has played an important role as an energy source for the factories, a means of transportation, a source of fish and as a recreational resource. Only ten years ago the Merrimack was one of the most polluted rivers in the United States but intensive pollution abatement efforts have led to dramatic improvements. Fish species that were almost wiped out by the pollution have returned in strength.

HISTORIC BACKGROUND

By the mid-19th century shoe manufacturing was the predominant industry in Haverhill. The city's manufacturers had earned a reputation for the quality of their product and many received medals at the 1876 Philadelphia Centennial Exposition.

In February, 1882 a devastating fire leveled nearly ten acres of the manufacturing area. Seventy-five manufacturing operations were destroyed. Plans were made to rebuild and, by October of the same year, 26 new buildings had been constructed including two bank buildings, a hotel and 23 shoe factories. The industry had not only survived the fire, but it now flourished in the new manufacturing facilities. Haverhill shoes continued to win world-wide recognition particularly the fancy ladies shoes which were known as "slippers". Local manufacturers were awarded medals at the Exposition of Paris in 1889 and the Columbian Exposition of 1892. Haverhill became known as the "Queen Slipper City of the World".

A variety of factors combined to produce a decline in Haverhill's shoe manufacturing industry. Cheaper shoes began to be imported into the United

States at the same time that worker's wage demands were increasing due to unionization. The Great Depression of the 1930's dealt the industry the final blow and Haverhill went into its steep economic decline.[5]

THE WASHINGTON STREET HISTORIC SHOE DISTRICT

In 1976, Haverhill applied to have an eleven acre section of its Central Business District listed in the National Register of Historic Places.The National Register is the nation's official list of buildings and districts that are judged to have historic significance. There are four criteria for listing in the national register : (a) association with events that are deemed to be historically significant; (b) association with the lives of persons who are significant to our history (e.g. "Washington slept here") ; (c) embodiment of distinctive characteristics of a type, period, or method of construction; (d) likelihood of yielding information significant in history or prehistory. [6]

In Haverhill's case the area was listed on the Register because it was felt that the the area presented a unified streetscape which had not been significantly altered since 1862. As a result of the rapid reconstruction which followed the fire of 1882, the district has the sort of unified and well preserved "streetscape" that the National Park Service considers to be worthy of preservation. Most of the buildings which were constructed after the fire of 1882 were the work of two Haverhill architects, C. Willis Damon and Josiah M. Littlefield. This serves to unify the overall architectural integrity of the district. Although many buildings have undergone ground floor storefront renovations, most of the architectural detail is intact. Only one building has

been torn down and it has not been replaced by a modern structure.[7]

All buildings in an historic district that are judged to be "contributing structures" are given the status of being a "certified historic structure". A "certified historic structure" is a depreciable building or structure that is either listed in the National Register or is located in a registered historic district and certified by the Secretary of the Interior as being of historic significance to the district. The project being studied is considered to be a "contributing structure".

As in the case of its neighbors, Lowell and Lawrence, Haverhill's historic buildings were saved in large part because the economy of the city was too depressed to support any new construction. In the late 1970's and early 80's the concept of preserving Main Street U.S.A. as an economic asset became popular. Some cities such as Lowell, Massachusetts have become tourism centers as a result of their Main Street Preservation Program. Other cities, such as Haverhill, have not had the same degree of success.

CHAPTER TWO

THE HAVERHILL MARKET

The characteristics of the Haverhill population were studied in order to identify a market for the developers rental or condominium apartments. Second, the economy of the area was examined in order to evaluate the area's growth potential. Finally, rental and sales comparables were identified in order to analyze the development's financial feasibility.

DEMOGRAPHICS

Table #1 summarizes the population characteristics of Haverhill and compares Haverhill to the 14 other towns and cities in the lower Merrimack Valley.These communities are: Amesbury,Andover, Boxford, Georgetown, Groveland, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, Rowley, Salisbury,and West Newburyport. A rank of one indicates lowest in the category,and a rank of 15 indicates highest in the category.

This data seems to indicate that Haverhill is a "working class" city. When compared to the 14 other cities that are included in the Merrimack Valley Planning Commission study only Lawrence has a higher percentage of persons without a high-school education and of families with a female head of household. These are two groups which are most likely to fall below the so-called "poverty line".

Table #1 : Characteristics of the Haverhill Population

		Rank
Population	46,865	14
Percentage under the age of 15	21.6%	7
Percentage over the age of 65	15.6%	8
Percentage of families with female head of household	19.0%	14
Percentage of persons without high school education	36.6%	14
Percentage of persons with college education	10.5%	3
Percentage of Blue Collar Workers	40.2%	11
Median family income	$18,890	3

Source : Merrimack Valley Planning Commision

Median family income of $18,890 is the third lowest in a range of between $15,457 for Lawrence and $35,483 for the affluent community of Boxford. The Haverhill Chamber of Commerce estimates that 1985 median income was $28,000 but no supporting documentation is provided to support this five year, 48% increase. Certainly income has increased as a function of inflation and as a result of declining unemployment in Massachusetts but the Chamber of Commerce estimate seems overly optimistic.[1]

A key indicator of housing demand is population growth. Census data for the Merrimack Valley reflects the decline in the areas population that

accompanied the decline in the area's economy. Haverhill's population in 1930 stood at 48,710 as compared to the 1980 population of 46,865. Between 1970 and 1980 the population increased by only 1.6% as compared to an increase of 5.6% for the area as a whole. (The Haverhill Chamber of Commerce estimates that population increased to 48,500 in 1985 but no supporting data is provided.)[2]

Building permit data indicates a surge of activity in recent years. In 1981, 961 permits were issued for projects totaling $10.9 million. In 1985, 1,675 permits were issued for projects valued at $29.2 million. Although some of these permits were for projects located in the city's central business district, many were for developments which are located close to the main highway, Route 495.[3]

The success or failure of this particular project is linked to Haverhill's efforts to revitalize its downtown. Most recent development in the area has been located as close as possible to Route 495. These projects are a benefit to the downtown area only in that they serve to increase the tax base of the city. Their location within the city limits is incidental to the main focus which is easy access to Route 495. Residents of these developments are most likely to shop at the nearby shopping malls located along Route 495 and work in office or manufacturing facilities which are also located along Route 495. The project under consideration must be able to compete with these developments which are oriented to the highway rather than the downtown. The downtown area must provide amenities and a lifestyle that will attract residents into the city and away from the highway.

To date there is little evidence that new residents are being attracted into the downtown. Most of the existing housing in the downtown area is subsidized and is not aimed at the more upscale market that is found in the developments around route 495.

THE ECONOMY OF THE REGION

The lower Merrimack Valley has seen three periods of economic growth. Prior to the industrial revolution the area was known for shipbuilding and the manufacturing of horse drawn carriages. These industries declined as a result of changes in technology and were gradually replaced by other industries.

By the end of the nineteenth century, the cities of Lawrence and Haverhill had become world centers of the textile and footwear industries.These industries eventually declined as a result of competition from cheaper products produced in the southern United States and overseas. During the period between 1947 and 1956, the region had a net loss of nearly 18,000 manufacturing jobs. The region's shoe manufacturing industry which had employed 12,000 workers in 1950, had less than 4,200 workers by 1975.

The most recent boom has resulted from the state's successful efforts to attract high-tech industry into the region. During the 1960's and 1970's the Boston area became a center for high-tech manufacturing. The Boston area now enjoys one of the lowest unemployment rates in the nation.

However, in large part, high-tech research and manufacturing has been fueled by the Reagan administration's defense spending. During the past six

years one of the largest peace-time defense build-ups in our history has made for profitable times for defense contractors. Many of the high-tech components for the new weapons systems are produced by Boston area firms that obtain subcontracts from large defense contractors such as General Dynamics and Rockwell International.

Therefore the economy of the region is very dependent on the continued growth of the defense industry. Sharp reductions in military spending during the mid-1970's along with the recession of 1974-1975 led to regional unemployment rates of 16% in 1975. Future reductions in defense spending could cause another round of widespread layoffs and a regional economic decline. This decline would be felt most sharply by those cities which are already depressed, such as Haverhill and Lawrence. Until the region develops a more diversified economic base, there can be no assurance that property values will continue to rise if defense spending declines.[4]

MARKET COMPARABLES

The developer had projected rents of $650 for 625 square foot one-bedroom units and $750 for 825 square foot two-bedroom units. Rent for the retail space was projected at $13 per square foot. Current condominium sales price figures were projected at between $130 and $150 per square foot. These figures were based largely on information provided by realtors and city officials and did not rely on actual market comparables.

RENTAL COMPARABLES

The author conducted a study in order to test the validity of the developer's assumptions about the market and found that actual market rents for comparable apartments in the same block was in the range of $450 - $550 for a one bedroom unit and $650-$700 for a two bedroom unit. Three residential rental buildings, all of which are converted factory buildings, are presently in operation. Two other rental projects are under construction. The owners of these five properties were interviewed by the author in order to obtain the best available information about the actual and projected rents. (see Exhibit 3)

A four unit building at 97-99 Washington Street which is owned by a local dentist has one and two bedroom units which rent for $450 and $650 respectively. All apartments have washer/dryer units and the two bedroom apartments have one and one-half bathrooms. The two bedroom units contain about 1200 square feet which is almost 50% larger than two-bedroom units in the subject property.[5]

An eight unit building at 52-54 Washington Street is owned by a local physician. A local newspaper, the Eagle Tribune is located on the ground floor. One and two bedroom units both contained 1000 square feet and were rented for $550 and $650 respectively. This elevator building is equiped with a security system and all apartments come with a full appliance package.[6]

A nine unit building at 46-48 Washington Street is owned by the shopkeeper who occupies the ground floor with a framing and print shop. The apartments are loft-type and are more or less rented by the square foot.

The owner installs interior walls to suit the needs of the tenant. Three of the nine units are completed and rented for about $.85 per square foot per month. When applied to the proposed development this translates into rents of $530 for the one bedroom units and $700 for the two-bedroom units. All of the units have washer/dryer units, microwave ovens, ceiling fans and "high-end" finishes. Tenants will share a roof-top deck and a community room. Units will range in size from 400 to 900 square feet. So far, only the smaller apartments have been rented but the owner hopes to rent his largest units for about $750.[7]

In the same block, two other rental housing projects are in construction. Both are conversions of shoe factory buildings. The building directly across Washington Street from the subject property was recently purchased by a local lawyer. Her plans include a ground floor restaurant, The Park Lunch, with six one-bedroom rental units above. Apartments will contain from 560 to 600 square feet. The apartments will feature air-conditioning, sound insulated walls and walk-in closets. Tenants will share a washer-dryer unit in the basement. The owner projected rents of $475 which she felt was slightly below the market but which would hopefully assure a fast rent-up.[8]

The building immediately next to the subject property is being converted into 14 rental units. The local developer/builder projects rents of from $550 for the one-bedroom, 650 square foot units and $750 for the bi-level, 1000 square foot units. As of July, 1986, the rough framing and plumbing had been completed. [9]

Rents were slightly higher for comparable, completed and occupied units in other parts of the city. A recently converted school house offered bi-level, 900 square foot, two bedroom units for $695. Other comparables, not in the immediate vicinity of the the project, had rents of about $675 for a two bedroom unit.

Retail rent for comparable space was found to be $12 per square foot per year which was very close to the developers estimate of $13.

CONDOMINIUM COMPARABLES

Actual sales price figures were found to be in the range of from $95 to $105 per square foot for comparable condominium units in the Haverhill area (see Exhibit 4). To date, no residential condominiums have been sold in the Haverhill Historic Shoe District in which this project is located. The developer would be "testing the water" for downtown condominium sales

As was discussed above, the project would have to be competitive with residential condominium projects located close to Route 495 in order to be successful. Some developments around Route 495 , such as the recently completed Hunter's Run development, offer two bedroom, townhouse units with garages for as little as $121,000. Two bedroom, one and 1/2 bath, apartments with approximately 1000 square feet in this same development were priced at $100,000 or $100 per square foot.

Prices for these new units are remarkably low when compared to prices for units located closer to Boston. Home prices in the Boston area are among the highest in the nation and have increased at an astonishing rate in recent

years. If these developments were located within 10 to 15 miles of Boston the price of the units would probably be twice or three times as great. The low prices are probably a result of low land costs. A number of the developments in Haverhill were constructed on land which had been purchased 10 or more years ago. In some cases, a few houses or an apartment building had been constructed on a large parcel in the 60's or 70's and the remainder of the land had been held for future development. Now a booming economy and the expansion of the Boston market made larger scale development close to route 495 possible. For the developer who had been holding the land for 10 or more years, land costs were really not a factor. The land was "bought and paid for" and had been acquired for a fraction of its current value.

By comparison, acquisition costs are a most important factor for the developer of the Washington Street property. Acquisition costs add about $18.50 per square foot to the cost of the development and would account for 20% of the projected total development costs.

CONCLUSIONS

The project is not feasible as a condominium project at this time due to competition from projects located outside of the downtown area, in many cases close to Route 495. If it is undertaken, the project should be developed as rental units with the hope that the downtown area will continue to improve and that this revitalization will lead to higher prices and allow the developer to convert to condominiums at a later date.

CHAPTER THREE

FINANCIAL ANALYSIS

The developer originally planned to build the project as condominium apartments which would be rented for a period of five years in order to fully capture the Investment Tax Credit for Historically Certified Structures. (A variation of this plan was to sell the condominium units to investors who would then rent the units and capture the Investment Tax Credit for themselves.) Based on the developer's original estimates of achievable rents, the property was expected to perform well during the rental holding period. Original projections showed an after-tax return on investment during the holding period of 28% in the first year of operation . The after-tax ROI was projected to increase to 41% by the fifth year of operation. Despite these promising expectations for rental period returns, it was the projected profits from the sale of the condominiums at the end of the holding period that provided the real incentive for going ahead with the project. Based on these expectations, the developer put up a non-refundable deposit of $100,000.

Shortly after the developer had put his money on the line, Senator Packwood announced that he had solid support in the Senate for a bill which would radically alter the tax code and eliminate most of the tax advantages of real estate investments. The bill would lower the maximum tax bracket

from 50% to 27% and would make up the lost revenues by eliminating a variety of tax deductions, including many which presently favor real estate. The bill was approved by the Senate Finance Committee in May and was approved by the full Senate on June 24, 1986. The House of Representatives had approved a different tax reform bill in December, 1985 and a compromise tax reform bill is now being negotiated by the joint Congress. The Senate and the House bills differ in many ways but both bills would have a negative impact on real estate development. Some of these negative impacts will be illustrated in this chapter.

The harsh realities of new market data, as presented in Chapter 2, also surfaced during this period. That data showed less potential from the near-term sale of the units and much lower than expected rent levels. Combined with the proposed sweeping changes in the tax law, the market analysis forced the developer to revise his plans for the project. If the project could be made to work as a long-term, residential rental development at the reduced rent levels, the developer would achieve a margin of safety that was lacking in his original concept. If the sales prices for condominiums in the area continued to rise, he could perhaps convert to condominiums at some future time but would not be faced with a loss in the event that prices remained flat or increased only slightly.

In this chapter the financial feasibility of the project is first analyzed when conventional financing is used. Two conventional financing scenarios are presented: Scenario 1 models the project using the provisions of the existing tax code. Scenario 2 models the project using those provisions of the

proposed tax legislation that are most likely to be adopted in the final tax reform bill.

Scenarios 3 and 4 demonstrate the effects of using an innovative state housing subsidy program, State Housing Assistance for Rental Production (SHARP). Scenario 3 models the project using the existing tax code and Scenario 4 uses the "most likely to be adopted" provisions, as in Scenario 2.

A key factor in the financial feasibility of the project will be the benefits derived from the Investment Tax Credit for Historic Rehabilitation. The provisions of this tax incentive are outlined below along with some of the possible changes in this tax credit which may be brought about by the pending tax bill.

THE INVESTMENT TAX CREDIT FOR HISTORIC REHABILITATION

The Economic Recovery Tax Act of 1981 established a tax credit for the rehabilitation of historic properties. The credit allows real estate developers to deduct from their taxes, on a dollar-for-dollar basis, 25% of the cost incurred in connection with the rehabilitation of historic properties. This credit can be taken as soon as the rehabilitation has been completed. And, the credits can be carried-back three years or carried-forward five years. These two features of the credit create, in effect, a direct Federal subsidy of construction costs designed to encourage historic rehabilitation. It is no wonder that many developers have become preservationists!

In order to qualify for this generous tax-credit, the following conditions must be present:

1) The building must be on the National Register of Historic Places or within an Historic District.

2) The property must be income-producing (rental) property. Owner-occupied residential property does not qualify.

3) The rehabilitation costs must exceed $5,000 or the adjusted basis of the property (the amount paid for the property less the cost of the land). That is, the developer must spend more for the rehabilitation than he paid for the property.

4) The rehabilitation work must be approved by the National Park Service and 75% of the existing exterior walls must be retained in place. (The provision of the tax act which requires that the rehabilitation work be approved by the National Park Service can create the risk of increased project costs. The developer can be subjected to the whims of a large federal bureaucracy.)

5) Only straight-line as opposed to accelerated depreciation can be taken and 50% of the amount of the investment tax credit must be deducted from the depreciable basis. (The proposed tax law would increase this deduction from the basis to 100% of the investment tax credit.)

6) The tax credit is subject to recapture if the property is sold during the first five years.(This penalty is charged on a pro rata basis. If the propery is sold after one year, 80% of the tax credit is recaptured, if it is sold after two years, 60% is recaptured and so on.)[1]

Proposed changes in the tax law which are under consideration as this is

written would reduce the value of the Investment Tax Credit in the following ways :

- The amount of the credit would be reduced from 25% to 20% of the cost of the rehabilitation expenses.
- The amount of the federal subsidy of construction costs would be reduced by 5%
- The Senate bill would require that the tax credits could only be used to offset passive or investment income as opposed to ordinary income such as wages. (It is unlikely that this provision will be retained in the final bill since it would drastically reduce the value of the tax credit.)
- Instead of 50% , the full investment tax credit would be deducted from the basis of the property. This would reduce the amount of the annual depreciation and would reduce taxable losses and increase taxable gains.

Although the benefits (some would say abuses) of the investment tax credit may be reduced by the proposed tax reforms, one could argue that historic rehabilitation projects will be no less attractive to developers and investors. Although the amount of the credit will be reduced as a percentage of rehabilitation costs, a tax credit will still provide a dollar-for-dollar reduction in the developer's tax bill and this type of credit may be one of the very few to survive the sweeping tax reforms. It is clear that Congress continues to believe that the benefits to the nation from providing tax incentives for historic rehabilitation have outweighed the drain on the Treasury.[2]

SCENARIO #1

THE BASE CASE : CONVENTIONAL FINANCING UNDER THE EXISTING TAX LAW

In order to establish a base case against which other scenarios could be compared, a spreadsheet financial model was developed. Income and expenses and before and after-tax returns were projected over a 10 year period. Estimated project costs were provided by the developer's general contractor and these assumptions have been incorporated into the base case model.

PROJECT BASE CASE ASSUMPTIONS

Project Costs :	
Construction Costs	$50.00 per sq.ft.
Parking	$10.00 per sq.ft.
Development Fee	5% of construction costs
Contingency	10% of construction costs
Projected Rents :	
One Bedroom	$550/month
Two Bedroom	$650/month
Retail	$12 sf/year
Operating Expenses :	
Management	5% of net revenues
Replacement	1% of net revenues
Growth Factors :	
Rents	5% per year
Expenses	5% per year
Construction period :	12 months
Disposition Cap Rate :	10%

A market survey of rents in comparable properties in the immediate area was used to establish projected rents. Based on this survey, the rents for one, two and three bedroom apartments of comparable size and quality were established. These rents were then increased at the rate of five percent per year. All projected rents are exclusive of utilities including heat. On site parking will be provided at an additional charge of $25.00 per month. Rent for the retail space was also based on a survey of comparable space in the immediate vicinity of the project. Retail rents were also increased at the rate of five percent per year. Although this rate of increase is somewhat conservative, an assumption was made that inflation will remain at present levels.

Operating expenses were based on projections made by the developer for similar properties in this area. Revenues and expenses have been increased at the same rate in order to reflect the effects of inflation on both. Because revenues are greater than operating expenses, the effect of increasing both at the same rate creates an increase in the Net Operating Income. If rents are increased at a greater rate than expenses, the Net Operating Income is increased by an even greater rate. This steady growth in the NOI is known as operating leverage. Aggressive assumptions about the projected increases in revenues can be used to turn a sow's ear into a silk purse and tend to distort the true economic worth of a project. Therefore, rather conservative assumptions have been made in order to minimize the effects of operating leverage.

It is assumed that the project will be held for ten years as a rental property. This assumption was made due to the present market price for residential condominiums in Haverhill.

The provisions of the existing tax law have been used for the projections in the base case model. These provisions are summarized in the table below and in the notes which follow.

TABLE #3 : EXISTING TAX LAW PROVISIONS

Maximum Tax Rates :	
Ordinary Income	50%
Capital Gains Income	20%
Depreciation Period	19 years
Deduction of ITC from Basis	50%

- The developer will be able to use the full Investment Tax Credit for Historic Rehabilitation in the year in which the project is completed. This credit is a dollar-for-dollar reduction in tax liability and can be carried back three years or carried forward five years. Because of the carry-back provision, the Investment Tax Credit is actually a return of equity if it does not exceed the total of taxes paid during the current year and the carry-back period. Therefore the ITC is treated as a reduction of the developers equity contribution to the project. This has the effect of greatly increasing his after-tax ROI in the following years.
- The developers will be able to fully use all after-tax losses in the year in

which they occur.

- The project will be sold on December 31 of year eleven and the sales price will be based on the capitalized value of the Net Operating Income for that year. The gain on sale will be taxed as a capital gain at the present maximum rate of 20%
- Under the existing tax law one-half of the Investment Tax Credit is deducted from the basis of the property for the purpose of calculating the yearly depreciation. Projects that utilize the Investment Tax Credit must be depreciated on a straight-line basis over the standard 19 year period.
- In this scenario, the project is financed using a construction loan with an interest rate of 9.5% and a mortgage loan with an interest rate of 10.5% The mortgage has a term of 15 years and an amortization period of 30 years. The maximum amount of the mortgage loan was derived by applying a debt service coverage ratio of 1.15 to the projected first year's Net Operating Income. This resulted in a maximum mortgage loan amount of $3,000,000.
- Since total project costs are about 5.5 million the project would require an equity contribution of about $2.5 million. For the purposes of this analysis, the actual amount of the equity required is reduced on a dollar- for-dollar basis by the Investment Tax Credit.

FEASIBILITY WITH CONVENTIONAL FINANCING UNDER EXISTING TAX LAW

The project is barely feasible under the provisions of the existing tax law. The rental income will not support a mortgage greater than $3,000,000. Therefore, the mortgage is only 53% of the total project cost. As noted

above, the developers equity contribution is reduced by the ITC but the project will still require a tax adjusted equity contribution of about $1,400,000.

Because the mortgage loan amount conforms with conventional underwriting standards the project provides a positive before-tax cash flow in the first operating year and in all subsequent years. After-tax cash flow in the first year is almost $140,000 which is a 9.9% return on the initial after-tax investment. This return on investment increases to 12.4% by the fifth year of operation. In this scenario, the project has an after-tax Net Present Value of $403,084 when discounted at 10% The Internal Rate of Return is 14.7% 9 (see Exhibit 5). (As noted above, the effect of a real estate syndication has not been included in the analysis in order to permit the comparison of a variety of different scenarios using different tax assumptions. The sale of the Investment Tax Credit, gains and losses, and the residuals would obviously reduce the developers initial investment but the total value of the ITC and losses during the first five years, the standard investor pay-in period, would be only $1,360,000 which is far short of the required $2,600,000 difference between total project costs and the maximum mortgage amount.)

It is important to note that the project could probably not be financed for an amount greater than $3,000,000 even if it were presented to the lender as a condominium development rather than as a rental project. As was discussed in Chapter 2 , no condominium projects have been developed in downtown Haverhill and the developers of this project would be the first to

test the market. Few lenders would finance this project for an amount which could not be supported by a rental alternative. That is, the bank would want to be assured that if the developer were unable to sell the apartments as condominiums, the units could be rented at levels which would support the debt payments.

SCENARIO 2 : CONVENTIONAL FINANCING WITH PROPOSED TAX LAW

Proposed sweeping changes in the tax law have created a climate of uncertainty for real estate developers. They are facing a new world in which it is likely that real estate development projects will no longer enjoy the favored tax status of recent years. It is probable that future real estate development projects will become more economic as opposed to tax-oriented. Proposed radical changes in the maximum income tax rate, the capital gains tax, the treatment of losses and gains, and the alternative minimum tax have made financial planning extremely difficult.

This scenario analyzes the project using the same basic assumptions of the Base Case but adds the provisions of the proposed tax law that are most likely to be adopted into law. By comparing this projection with the base case model, one can see the effect of the proposed tax law changes on this rental housing development. The developer based his original plans on the existing tax law and in this projection an attempt is made to predict the future

and to assess the project in light of a less favorable tax climate.

The assumptions made are as follows :

- The Capital Gains Tax is eliminated and all income is assumed to be taxed at a maximum rate of 30%.
- The depreciable life of the property is increased from 19 to 30 years. (Although accelerated depreciation will probably be eliminated in the new tax law, this will not affect the project since, as in the Base Case, accelerated depreciation cannot be used in conjunction with the Investment Tax Credit for Historic Properties.)
- The full amount of the Investment Tax Credit is deducted from the basis of the property as compared to a reduction of one-half of the ITC under the existing tax law.
- As in the Base Case, the mortgage amount is determined by applying a Debt Coverage Ratio of 1.15 to the Net Operating Income of the first stabilized year and the sales price is calculated by capitalizing the Net Operating Income in the year of sale at 10%
- Losses are limited to a maximum of $25,000 per year which can be used to offset ordinary income.
- Construction period expenses including construction interest and financing fees are added to the depreciable basis instead of being amortized over a ten year period or the life of the loan. This provision substantially reduces the losses that can be taken during the construction period and is aimed at curbing tax-shelter losses.

FEASIBILITY WITH CONVENTIONAL FINANCING AND PROPOSED TAX LAW

The project is not feasible under the provisions of the proposed tax law. The required initial investment is increased to $1,700,000 due to the reduction in the Investment Tax Credit from 25% to 20% of the rehabilitation expenses. The amount of yearly depreciation is reduced by more than $100,000 because of the increased depreciation period. Yearly depreciation is also decreased because of the provision which requires that the full amount of the Investment Tax Credit be deducted from the basis amount.

The value of the remaining losses is further decreased by the lower maximum marginal tax rate. The taxable gain on sale is taxed at ordinary rates because the capital gains tax provision is eliminated.

The after-tax Net Present Value of the project is reduced to under 10% and the Internal Rate of Return is reduced to 8.90% The project does not provide an after-tax return on the initial investment that is above 10% until the eighth year of operations. It is very unlikely that large initial investments would be made with the expectation of such meagre returns (see Exhibit 6).

PUBLIC SECTOR FINANCING FOR RENTAL HOUSING

Because the project does not appear to be feasible under the provisions of the proposed tax law, housing assistance programs are examined as possible alternatives to the conventional financing discussed in Scenarios 1 and 2.

As the gap between the cost of producing rental units and the rents which can be charged to support those costs has increased, private and public sector developers have had to look to various forms of subsidy. Although these programs can be extremely complicated, there are really only three areas of rental housing development that can be provided with subsidy : construction costs, financing costs and rental income. All Federal and state programs involve the use of one or more of these subsidy mechanisms.

In most cases, the developer is required to conform to certain affordability guidelines in exchange for the public subsidy. Guidelines can place limits on sales prices or rents. Some programs provide a subsidy directly to the consumer as is the case in mortgage subsidy programs for first time home buyers and rental subsidy programs such as the federal existing Section 8 program or Massachusett's Chapter 707 Program.

The Reagan administration has almost entirely eliminated federal housing assistance programs. Fortunately, Massachusetts has created a number of programs which are intended to replace these federal programs. One of these state programs is examined in the remainder of this chapter.

STATE HOUSING ASSISTANCE FOR RENTAL PRODUCTION (SHARP)

This program has been in operation through the Executive Office of Communities and Development since 1984. It was established to increase the availability of housing for low-income households through tax-exempt mortgage bond programs in the face of declining federal subsidies. SHARP

provides an additional interest rate write-down as a means of making tax-exempt rental projects more income targetted.

The permanent financing for SHARP projects is provided by the Massachusetts Housing Finance Agency (MHFA). The MHFA issues tax-exempt bonds and uses the proceeds to provide mortgages which have a reduced interest rate. The present interest rate for this type of mortgage is in the area of 8.00% The SHARP funds are used to reduce the interest rate of the mortgage to as low as 5% on projects where at least 25% of the units are affordable to families earning 80% or below of the area's median income. For the Haverhill area, 80% of the median income of a family of three is $22,950.

The SHARP funds are considered to be a loan to the developer and the guidelines require that the full amount of the subsidy be repaid at the time of sale or "as the project can afford to do so". Since both the market rate rents and the HUD determined rents are expected to rise over time, the amount of the annual SHARP subsidy required is expected to decline. The SHARP subsidy must be phased out over a 15 year period. The developer is required to repay the cumulative amount of the SHARP subsidy with a deferred interest rate of 5% per year. The subsidy provided by the MHFA tax-free bond financing does not need to be repaid.

The annual amount of the SHARP subsidy available for the lower income units is determined by the gap between "cost-based" rents and "attainable" rents. "Cost-based" rents are defined as the rent needed to support the debt service and operating costs of the project. For those units which have <u>not</u> been set aside for low income families,"attainable" rent is the same as the

market-rate rent. And, for the setaside low-income units, "attainable" rent is determined by the using figures provided on an annual basis for the region by the federal Department of Housing and Urban Development (HUD).

Low-income persons who are unable to pay the full amount of the HUD determined "attainable" rent may be provided with federal Section 8 or state Chapter 707 rental assistance certificates which provide a direct rent subsidy to the owner. As a result, the owner is not at risk with regard to the income stream from the low-income units.

As an example of how the two SHARP rent schedules might compare with each other,Table #4 lists the rents which are attainable in the open market in Haverhill and the HUD determined rents. HUD rents have been adjusted for the cost of all utilities including heat.

As can be seen from the table, these HUD defined maximum rents are usually well below the open market maximum rents. This, in effect, reduces the rent roll from what might be seen in a conventional market rate project.

Table #4 : Market Rents Compared With HUD Existing Section 8 Rents

	Market Rent	HUD Rent
One Bedroom	$550	$370
Two Bedroom	$650	$400
Three Bedroom	$750	$520

SHARP and other subsidy programs have to be carefully examined to determine what impact restrictions and requirements of the developer actually have on the project's bottom line. For example, program guidelines

require that "the owner's contribution in SHARP developments will approximate twenty per cent of the total project cost". However, the developer's actual cash contribution can be far less than twenty per cent because of the SHARP's definition of qualified equity. The equity investment is made up of four components :

1. The developer's fee which is 10% of the total project costs exclusive of the acquisition cost.

2. A cash contribution which is equal to about 2% of the mortgage amount.

3. An operating period letter of credit which is equal to 4% of the mortgage amount. This letter of credit can decline by one per cent per year after each full year of operation with a positive cash flow.

4. An additional letter of credit which is also equal to 4% of the mortgage amount but which is not reduced by one per cent per year.

Therefore, actual cash equity required is only 2% for projects that can be financed with a mortgage in the amount of 88% of the total project costs. (Debt service coverage is required to be at least 110%) This provision is very popular with developers who do not want to make large equity investments in development projects.

Another example of a "paper tiger" restriction on developers is a regulated return to six per cent based upon his actual cash contribution. However, the program guidelines do not consider the tax effects of the project. Of course, the developer and the public agencies are well aware of them. Under the existing tax law the developer is able to sell off the tax benefits of the project thereby improving his return. This has been a major

driving force behind the program.[2]

The proposed tax reforms would greatly reduce the tax benefits for this type of project and for subsidized housing in general. However, they will still offer an opportunity for developers to make some projects more feasible and affordable.This is illustrated in the following two scenarios.

SCENARIO #3: TAX-EXEMPT MORTGAGE FINANCING WITH SHARP SUBSIDY UNDER EXISTING TAX LAW.

Based on the guidelines discussed above, the following assumptions were made:

- The project will be be supported by the two levels of rent shown in Table #4 : 75% of the units will provide rents which have been determined by the open market and 25% of the units will provide rents which are set according to the HUD schedule and which are below-market.
- The rent from the retail space will provide an additional income stream. MHFA financing can be used for this part of the development because it is less than 5% of the total project.
- The mortgage amount is the lesser of 88% of total project costs or the amount that can be supported when provision is made for 110% debt service coverage.
- The interest rate for the permanent loan is 8% which is the current rate for mortgages financed with tax-free bonds. The mortgage interest rate in Scenarios 1 and 2 was 10.5%
- Repayment of the SHARP subsidy commences in the operating year in

which the cash-flow is in excess of the amount required to provide the developer with a six per cent return on equity as defined in the SHARP program guidelines.

- The full amount of the remaining total SHARP subsidy is repaid in the year of sale.
- Since the SHARP subsidy is phased out over the ten year holding period, it is assumed that the project is sold as a market rate project in year eleven.

FEASIBILITY USING TAX-EXEMPT MORTGAGE FINANCING WITH SHARP SUBSIDY : EXISTING TAX LAW

The financial analysis of this scenario demonstrates very clearly why developers have been eager to participate in the SHARP program. (The spreadsheet analysis is presented as Exhibit 7.)

The most important benefits to the developer in this scenario are derived from the greatly increased mortgage amount. The mortgage amount can be increased to $5,280,000 as a result of three factors : (1) tax-exempt financing allows the interest rate to be reduced to 8% (2) the debt service coverage requirement is reduced to 110% (3) the SHARP subsidy is used to make up the difference between the net operating income and the fixed debt service.

In Scenario 1 (conventional financing under the existing tax law), the gap between the total project cost and the mortgage amount was about $2,600,000. In this scenario the gap is reduced to about $740,000 and almost $500,000 of this gap represents the developers 10% fee which is counted as an

equity contribution. In Scenario 1, even after taking into account the effect of the investment tax credit as a de facto reduction of equity, the developer's equity contribution is about $1,400,000. In the present scenario, due to the increased mortgage amount, almost the full amount of the investment tax credit can be "taken out of the deal" and the project has a positive after-tax cash flow of nearly $1,100,000 in the first year.

Although the developer's return on equity is limited to 6%, this reduced before-tax return is more than compensated for by the greatly increased tax benefits. One might say that the developer really no longer cares about the before-tax cash flow of the project - the real rewards come from the tax benefits. The project throws off large after-tax losses in every year of operation. In the first year of operation tax shelter benefits account for almost 93% of the after-tax cash flow.

Taxes on the sale proceeds plus the repayment of the SHARP subsidy result in a negative cash flow of about $430,000 in the sale year. This tax-loss recapture and resulting negative cash flow on sale is typical of highly leveraged, tax-oriented deals. The present value of this loss when discounted at 10% is only $167,000.

SCENARIO #4: TAX-EXEMPT MORTGAGE FINANCING WITH SHARP SUBSIDY UNDER PROPOSED TAX LAW

This scenario models the effects of the proposed tax law on rental projects using the SHARP program. In a more general way it illustrates the effect of the proposed tax law on all low-income housing projects.

Tax incentives have made low-income rental housing an attractive investment. The proposed tax law would remove most of the tax advantages which make these projects possible. If it were not for the Investment Tax Credit, which is reduced but not eliminated in the proposed legislation, this project would be totally infeasible. Even so, the value of the project is greatly reduced by the tax law changes.

The assumptions made are the same as those made in Scenario #3 plus the following assumptions which reflect the proposed changes in the tax law:

- The Capital Gains Tax is eliminated and all income is assumed to be taxed at a 30% maximum rate.
- The depreciable life of the property is increased to 30 years from 19 years.
- The full amount of the Investment Tax Credit is deducted from the basis of the property for purposes of calculating the annual depreciation.
- Losses which can be used to offset ordinary income are limited to $25,000 per year.
- All construction period expenses are added to the depreciable basis of the property instead of being expensed in the year incurred or amortized over a 10 year period.

FEASIBILITY USING TAX-EXEMPT MORTGAGE FINANCING WITH SHARP SUBSIDY UNDER PROPOSED TAX LAW

The present value of the after-tax cash flows is reduced by 61% as a result of the proposed changes in the tax law. Although the project still has a positive after-tax cash flow in the first year, this cash flow is substantially

reduced by the reduction in the investment tax credit and by the elimination of the losses generated by construction period expenses. (As noted above, under the new tax law provisions all construction period expenses are added into the depreciable basis of the property and are depreciated over 30 years.) After-tax cash flow in the first year is reduced from about $1,100,000 to $730,000. (see Exhibit 8)

Since only $25,000 of the tax losses can be offset against ordinary income, and since a maximum tax rate of 30% has been assumed, the annual cash flow from the tax shelter is reduced to a maximum of $7,500 per year. Since the SHARP program limits the developer's return on equity to 6% , the total after-tax cash flow during the entire operating period is only $22,590 per year. Annual operating period after-tax cash flows in the previous scenario ranged from about $190,000 in year two to $84,000 in year ten.

Clearly, the SHARP program is far less attractive when used under the provisions of the proposed tax law. However, when compared with the use of conventional financing under the proposed tax law (Scenario 2), the SHARP program is preferable. Table 5 below compares the two "new tax law" scenarios.

Table #5 : Comparison of Scenario 2 with Scenario 4

	Conventional	SHARP
Equity Required	$1,712,218	none
Before-Tax NPV	($1,413,411)	($142,996)
After-Tax NPV	($122,016)	$567,803

CONCLUSIONS

The developer should make use of the SHARP program in order to obtain a large mortgage at a below-market rate. The SHARP program allows the developer to finance almost 88% of the total project cost. When conventional financing is used (Scenarios 1 and 2), only 53% of the project cost can be financed. The SHARP program allows the developer to "take cash out of the deal" at the completion of construction. This money can be used to fund his next development project.

When conventional financing is used, the project is barely feasible under the existing tax law and infeasible under the proposed tax law. When the SHARP program is used, the project is feasible under both the existing and the proposed tax law. The proposed tax law would reduce the projects potential but the project would still provide an adequate return. The SHARP program would allow the developer to proceed with the project despite the negative impact of the tax law changes.

EXHIBIT 1

EXHIBIT 2

Washington Street Shoe District

EXHIBIT 3

Haverhill Rental Comparables : Current rentals

Address	Units	Sq.Ft.	Rents
97-99 Washington St.	2 one bed.	600	$450 + utilities
Haverhill	2 two bed	1200	$650 + utilities

Owner: Dr. Howard Hill

Remarks: Luxury class units. Owner provides no parking. Rehab of factory building in same block as subject property. All units have washer/dryer. Two bed units have lvgrm, 1 1/2 baths, study area, separate kitchen.

Address	Units	Sq.Ft.	Rents
Eagle Tribune Bldg.	2 one bed.	1000	$550 + utilities
Finney Block	6 two bed	1000	$650 + "
52-54 Washington St.			

Owner: Dr. Mike Mallamud

Remarks: Elevator building. All appliances included. Security system. Owner considers units to be luxury class. No vacancies.

Address	Units	Sq.Ft.	Rents
46-48 Washington St. (above Angles & Arts)	9 loft type	500-900	approx .85/sf/mo. + utilities.

Owner: Richard St.Onge
Status: In final stages of construction. Three units leased.

Remarks: Owner will install interior walls to suit tenant. All units to have washer/dryer, microwave ovens ceiling fans, carpet, sound insulated walls, high end finishes. Tenants will share roof-top deck and community room. 5 river-view units. 10 parking spaces will be rented to tenants. Separate utilities.

Haverhill Rental Comparables : Proposed and In Construction

Address	Units	Sq.Ft.	Projected Rents
Park Lunch Rest. Bldg.	6 one bed.	560-600	$475 + utilities

Owner : Teresa Kyle

Status: In Construction

Remarks: Directly across street from subject property. Owner plans to increase rents as taxes are increased and lease will contain pass-through clause. Sound insulated walls, air-conditioning, all appliances, tenants to share washer/dryer, walk-in closets. Luxury class units.

Address	Units	Sq.Ft.	Projected Rents
Wyngate Building	12 one bed.	650	$585
Wyngate St., Haverhill	18 two bed.	1300	$1170

Owner: Richard Glanz/ _ Wilkoz

Status : Owner says project is on hold until market can support rents of $.90/sf/month or until project is redesigned. (Telephone contact w/Richard Glanz 6/18/85)

Remarks : One block from subject property.

Address	Units	Sq.Ft.	Projected Rents
Nichols Building	3 One bed.	650	$550 - $600 +
60-64 Washington Street	5 Two bed.	735- 900	$625
	6 Duplex	900- 1060	$750

Owner: Walter Bart

Status : In Construction. Demolition completed.

EXHIBIT 4

Haverhill Condominium Comparables

project	sq.ft.	price	price/sf
Hunter's Run			
1 bd. 1 bath	990	$99,500	$101
2 bd. 1 1/2 bath	1150	$110,000	$95
Liberty Hill			
new townhouse	1360	$124,900	$92
new townhouse	1160	$121,900	$105
resales :			
2bd. 1 bath	1000	$84,000	$84
2bd. 1 bath	950	$83,800	$88
2bd. 1 bath	1000	$85,000	$85
Casablanca Court			
2 bd. 1 1/2 bath	1140	$124,900	$109
2 bd. 2 bath	1400	$127,000	$91
2 bd. 1 1/2 bath	1600	$134,000	$84
2 bd. 1 1/2 bath	1200	$119,000	$99
Farrwood Drive			
2 bd. 1 1/2 bath	1500	$120,900	$81
2 bd. 1 bath	1250	$117,900	$94

file: EXISTING WORKSHEET FOR PRO-FORMA DEVELOPMENT COSTS
existing tax law

CONVENTIONAL FINANCING WITH EXISTING TAX LAW

DATE OF PROJECTION	JULY 18,1986
PROJECT NAME	HAVERHILL MIXED USE PROJECT
ESTIMATED START DATE	JANUARY 1, 1987
CONSTRUCTION PERIOD	12 MONTHS
LOCATION	HAVERHILL MA

PROJECT MIX - GROSS SQUARE FEET

Rehab Existing sf	56,340	(48,000 net)
New Condominium sf	0	
Retail sf	3,480	
Parking Deck sf	0	
Parking sf (open)	19,800	

FINANCING:
CONVENTIONAL MORTGAGE

PROJECT CHARACTERISTICS

Rental Units:			
Studio	0		
One Bedroom	30		
Two Bedroom	36		
Three Bedroom	0	total units:	66
Parking	66	spaces	
Retail (net sf)	3062	net sf (88%)	
Condo (net sf)	0	net sf (88%)	

Construction:		Permanent:	
Amount (CL)	3,000,000	Amount (PL)	3,000,000
Rate (CI)	9.50%	Rate (PI)	10.50%
Points(CPT)	2.00%	Points (PPT)	2.00%
Term (CT)	12 months	TERM (PT)	180 months
Average Out (CAV)	50%	Amortization (AM	360 months
		Payment (PDS)	329,306

08-Aug-86 existing tax law

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE :			OPERATIONS PHASE :		
Acquisition Cost	$950,000.00	(25% allocated to land)	Studios	N/A	per month
Site Improvements	$200,000.00		One Bedroom	$550.00	per month
Parking Land Acq.	$165,000.00		Two Bedroom	$650.00	per month
Construction Costs			Three Bedroom	N/A	per month
Rental Units	$50.00	per sf	Parking	$25.00	per month
Retail Space	$40.00	per sf	Retail	$1.00	per sf/month
Parking	$10.00	per sf			
			GROSS OPERATING INCOME	$535,349	per year
Consultants	10,000				
Architectural and Engineeri	5.00%	of const.	VACANCY FACTOR		
Legal and Accounting	$45,000		Leasing Year:		
Permits	$10,000		Retail	10.00%	
Marketing and Leasing	$25,000		Residential	5.00%	
Insurance (construction per	$10,000		Stabilized Year		
R.E. Taxes (construction pe	$5,000		Retail	10.00%	
Contingency	10.00%	of const.	Residential	5.00%	
Overhead	5.00%	of total	ANNUAL OPERATING EXPENSES :		
			Real Estate Taxes	$33,000	
			Repairs, Maint., Supplies	$12,500	
SALE :			Electricity (common areas)	$7,500	
Capitalization Rate	10.00%		Water & Sewer	$5,000	
Sales Expense	6.00%		Insurance	$10,000	
			Legal & Accounting	$5,000	
			Payroll (includes taxes)	$15,000	
			Administrative	$5,000	
			TOTAL	$93,000.00	
TAXATION					
Ordinary Income	50%		MANAGEMENT EXPENSE	5.00%	net revenues
Capital Gains	20%				
Depreciation	19 yr. SL				
Adjustment to Basis	50% of ITC		GROWTH FACTOR:		
			Market Rent (IMR)	5.00%	
HURDLE RATE :			Operating Expenses (IOE)	5.00%	
Before Tax	20.00%				
After Tax	10.00%		CONVENTION	End of Year	

EXHIBIT B: PROJECT COST ESTIMATE

PROJECT: Haverhill Mixed Use
CONSTRUCTION START: January 1, 1987
SPACE:

YEAR	1	2		
ACTIVITY	Construction	Leasing		
ITEM COST ESTIMATE			Total Cost	Cost Per Square Foot
Acquisition:				
Buildings	$950,000			$15.88
Parking Land	$165,000			$2.76
Improvements:				
Rental Apartments	$2,817,000			$47.09
Retail	$139,200			$2.33
Parking (open)	$198,000			$3.31
Site Improvements	$200,000			$3.34
Architectural & Engi	$184,481			$3.08
Contingency	$335,420			$5.61
Total Improvements	$3,874,101			$64.76
Consultants	$10,000			$0.17
Legal and Accounting	$45,000			$0.75
Permits	$10,000			$0.17
Marketing & Leasing	$25,000			$0.42
Insurance (const.period)	$25,000			$0.42
R.E. Taxes (const.period)	$5,000			$0.08
Construction Interest	$142,500			$2.38
Construction Loan Points	$60,000			$1.00
Permanent Loan Points	$60,000			$1.00
Overhead	$250,000			$4.18
Total Soft Costs	$632,500			$10.57
TOTAL ESTIMATED COST	$5,621,601			$93.98
ITC BASIS	$4,506,601			
ITC (25%)	$1,126,650			
EQUITY REQUIRED	$1,494,951			
DEPRECIABLE BASIS	$4,273,276			

EXHIBIT D : PROJECTED INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations
GROSS OPERATING INCOME											
Studio Apartments	0	$0									
One Bedroom Apartments	0	$198,000	$207,900	$218,295	$229,210	$240,670	$252,704	$265,339	$278,606	$292,536	$307,163
Two Bedroom Apartments	0	$280,800	$294,840	$309,582	$325,061	$341,314	$358,380	$376,299	$395,114	$414,869	$435,613
Three Bedroom Apartments	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retail Space	0	$36,749	$38,586	$40,516	$42,541	$44,668	$46,902	$49,247	$51,709	$54,295	$57,009
Parking	0	$19,800	$20,790	$21,830	$22,921	$24,067	$25,270	$26,534	$27,861	$29,254	$30,716
TOTAL	0	$535,349	$562,116	$590,222	$619,733	$650,720	$683,256	$717,419	$753,290	$790,954	$830,502
LESS VACANCY ALLOWANCE	0	$27,615	$30,035	$31,537	$33,114	$34,769	$36,508	$38,333	$40,250	$42,262	$44,376
NET REVENUES	0	$507,734	$532,081	$558,685	$586,619	$615,950	$646,748	$679,085	$713,040	$748,692	$786,126
LESS OPERATING EXPENSES	0	$93,000	$97,650	$102,533	$107,659	$113,042	$118,694	$124,629	$130,860	$137,403	$144,274
LESS MANAGEMENT EXPENSE	0	$25,387	$26,604	$27,934	$29,331	$30,798	$32,337	$33,954	$35,652	$37,435	$39,306
LESS REPLACEMENT EXPENSES	0	$10,155	$10,642	$11,174	$11,732	$12,319	$12,935	$13,582	$14,261	$14,974	$15,723
NET OPERATING INCOME (NOI)	$0	$379,193	$397,185	$417,045	$437,897	$459,792	$482,781	$506,920	$532,266	$558,880	$586,824
Capitalization Rate:		6.75%	7.07%	7.42%	7.79%	8.18%	8.59%	9.02%	9.47%	9.94%	10.44%
LESS PROJECT COSTS	$5,621,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	
PLUS LOANS	3,000,000	3,000,000									
PLUS SALES PROCEEDS											$5,516,144
LESS DEBT REPAYMENT	0	3,000,000									$2,748,671
CF BEFORE DEBT SERVICE	($2,621,601)	$379,193	$397,185	$417,045	$437,897	$459,792	$482,781	$506,920	$532,266	$558,880	$3,354,296
FIXED DEBT SERVICE	$0	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306
BEFORE-TAX CASH FLOW	($2,621,601)	$49,886	$67,879	$87,739	$108,591	$130,486	$153,475	$177,614	$202,960	$229,574	$3,024,990
BEFORE-TAX NPV	($1,413,411)										
BEFORE-TAX IRR	5.63%										
Debt Coverage Ratio		1.15	1.21	1.27	1.33	1.40	1.47	1.54	1.62	1.70	10.19
Cash on Cash (adjusted for ITC)		3.34%	4.54%	5.87%	7.26%	8.73%	10.27%	11.88%	13.58%	15.36%	202.35%

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	0	379,193	397,185	417,045	437,897	459,792	482,781	506,920	532,266	558,880	586,824
DEDUCTABLE EXPENSES											
Less Interest Payments	0	314,291	310,799	308,760	306,495	303,982	301,191	298,092	294,652	290,834	286,594
Less Depreciation	0	224,909	224,909	224,909	224,909	224,909	224,909	224,909	224,909	224,909	224,909
Construction Period:											
Taxes	500	500	500	500	500	500	500	500	500	500	
Interest	14,250	14,250	14,250	14,250	14,250	14,250	14,250	14,250	14,250	14,250	
Leasing/Mrkting	25,000										
Legal & accounting	45,000										
Insurance	10,000										
Permits	10,000										
Consultants	10,000										
Financing Fees:											
Const. Loan Fee	0										
Const. Loan Points	60,000										
Perm. Loan Fee	0										
Perm. Loan Points	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
TOTAL DEDUCTIBLE	178,750	557,950	554,459	552,419	550,155	547,641	544,850	541,752	538,312	534,493	515,503
TAXABLE INCOME (LOSS)	(178,750)	(178,758)	(157,273)	(135,374)	(112,258)	(87,849)	(62,069)	(34,831)	(6,045)	24,387	71,321
ITC	1,126,650										
TAX SHELTER (PAYMENT)	1,216,025	89,379	78,637	67,687	56,129	43,925	31,034	17,416	3,023	(12,194)	(35,660)
PLUS BTCF	(2,621,601)	49,886	67,879	87,739	108,591	130,486	153,475	177,614	202,960	229,574	3,024,990
Net Sales Price											5,516,144
Basis											
Land											402,500
Building											2,024,183
Unamortized Expenses											
Points											16,000
Commissions											0
Taxable Gain on Sale											3,073,460
Tax on Sale											614,692
AFTER-TAX CASH FLOW	(1,405,576)	139,265	146,516	155,426	164,720	174,410	184,510	195,030	205,983	217,380	2,374,638
AFTER-TAX ROI		9.91%	10.42%	11.06%	11.72%	12.41%	13.13%	13.88%	14.65%	15.47%	168.94%

NPV@10% 403,084

08-Aug-86 existing tax law

file: PROPOSED
proposed tax law

WORKSHEET FOR PRO-FORMA DEVELOPMENT COSTS

CONVENTIONAL FINANCING WITH PROPOSED TAX LAW

DATE OF PROJECTION	JULY 18,1986
PROJECT NAME	HAVERHILL HISTORIC REHAB
ESTIMATED START DATE	JANUARY 1, 1987
CONSTRUCTION PERIOD	12 MONTHS
LOCATION	HAVERHILL MA

PROJECT MIX - GROSS SQUARE FEET

Rehab Existing sf	56,340	(48,000 net)
New Condominium sf	0	
Retail sf	3,480	
Parking Deck sf	0	
Parking sf (open)	19,800	

FINANCING:
CONVENTIONAL MORTGAGE

PROJECT CHARACTERISTICS

Rental Units:			
Studio	0		
One Bedroom	30		
Two Bedroom	36		
Three Bedroom	0	total units:	66
Parking	66	spaces	
Retail (net sf)	3062	net sf (88%)	
Condo (net sf)	0	net sf (88%)	

Construction:		Permanent:	
Amount (CL)	$3,000,000	Amount (PL)	$3,000,000
Rate (CI)	9.50%	Rate (PI)	10.50%
Points(CPT)	2.00%	Points (PPT)	2.00%
Term (CT)	12 months	TERM (PT)	180 months
Average Out (CAV)	50%	Amortization (AM	360 months
		Payment (PDS)	$329,306
		Constant	0.1098
		Maximum Loan	3,003,889

EXHIBIT 6

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE :			OPERATIONS PHASE :		
Acquisition Cost	$950,000.00	(25% allocated to land)	Studios	N/A	per month
Site Improvements	$200,000.00		One Bedroom	$550.00	per month
Parking Land Acq.	$165,000.00		Two Bedroom	$650.00	per month
Construction Costs			Three Bedroom	N/A	per month
Rental Units	$50.00	per sf	Parking	$25.00	per month
Retail Space	$40.00	per sf	Retail	$1.00	per sf/month
Parking (open)	$10.00	per sf			
			GROSS OPERATING INCOME	$535,349	per year
Consultants	$10,000				
Architectural and Eng.	5.00%	of const.	VACANCY FACTOR		
Legal and Accounting	$45,000		Leasing Year:		
Permits	$10,000		Retail	10.00%	
Marketing and Leasing	$25,000		Residential	5.00%	
Insurance (construction)	$10,000		Stabilized Year		
R.E. Taxes (construction)	$5,000		Retail	10.00%	
Contingency	10.00%	of const.	Residential	5.00%	
Overhead	5.00%	of total	ANNUAL OPERATING EXPENSES :		
			Real Estate Taxes	$33,000	
			Repairs, Maint., Supplies	$12,500	
SALE :			Electricity (common areas)	$7,500	
Capitalization Rate	10.00%		Water & Sewer	$5,000	
Sales Expense	6.00%		Insurance	$10,000	
			Legal & Accounting	$5,000	
			Payroll (includes taxes)	$15,000	
			Administrative	$5,000	
TAXATION			TOTAL	$93,000.00	
Ordinary Income	27%				
Capital Gains	27%		MANAGEMENT EXPENSE	5.00%	net revenues
Depreciation	30 yr. SL				
Adjustment to Basis	100% of ITC				
			GROWTH FACTOR:		
HURDLE RATE :			Market Rent (IMR)	5.00%	
Before Tax	20.00%		Operating Expenses (IOE)	5.00%	
After Tax	10.00%		Market Sales Price (ISP)	8.00%	
			CONVENTION	End of Year	

EXHIBIT B: PROJECT COST ESTIMATE

PROJECT Haverhill Mixed Use
CONSTRUCTION START January 1, 1987
SPACE

YEAR	1	2		
ACTIVITY	Construction	Leasing		
ITEM COST ESTIMATE			Total Cost	Cost Per Square Foot (Retail + Residential)
Acquisition:				
Buildings	$950,000			$15.88
Parking Land	$165,000			$2.76
Improvements:				
Rental Apartments	$2,817,000			$47.09
Retail	$139,200			$2.33
Parking (open)	$198,000			$3.31
Site Improvements	$200,000			$3.34
Architectural & Eng.	$184,481			$3.08
Contingency	$335,420			$5.61
Total Improvements	$3,874,101			
Consultants	$10,000			$0.17
Legal and Accounting	$45,000			$0.75
Permits	$10,000			$0.17
Marketing & Leasing	$25,000			$0.42
Insurance (const.period)	$25,000			$0.42
R.E. Taxes (const.period)	$5,000			$0.08
Construction Interest	$142,500			$2.38
Construction Loan Points	$60,000			$1.00
Permanent Loan Points	$60,000			$1.00
Overhead	$250,000			$4.18
Total Soft Costs	$632,500			$10.57
TOTAL ESTIMATED COST	$5,621,601			$93.98
ITC BASIS	$4,506,601			
ITC (20%)	$901,320			
EQUITY REQUIRED	$1,720,281			
DEPRECIABLE BASIS	$4,317,781			

08-Aug-86 proposed tax law

EXHIBIT D : PROJECTED INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations
GROSS OPERATING INCOME											
Studio Apartments	0	$0									
One Bedroom Apartments	0	$198,000	$207,900	$218,295	$229,210	$240,670	$252,704	$265,339	$278,606	$292,536	$307,163
Two Bedroom Apartments	0	$280,800	$294,840	$309,582	$325,061	$341,314	$358,380	$376,299	$395,114	$414,869	$435,613
Three Bedroom Apartments	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retail Space	0	$36,749	$38,586	$40,516	$42,541	$44,668	$46,902	$49,247	$51,709	$54,295	$57,009
Parking	0	$19,800	$20,790	$21,830	$22,921	$24,067	$25,270	$26,534	$27,861	$29,254	$30,716
TOTAL	0	$535,349	$562,116	$590,222	$619,733	$650,720	$683,256	$717,419	$753,290	$790,954	$830,502
LESS VACANCY ALLOWANCE	0	$27,615	$30,035	$31,537	$33,114	$34,769	$36,508	$38,333	$40,250	$42,262	$44,376
NET REVENUES	0	$507,734	$532,081	$558,685	$586,619	$615,950	$646,748	$679,085	$713,040	$748,692	$786,126
LESS OPERATING EXPENSES	0	$93,000	$97,650	$102,533	$107,659	$113,042	$118,694	$124,629	$130,860	$137,403	$144,274
LESS MANAGEMENT EXPENSE	0	$25,387	$26,604	$27,934	$29,331	$30,798	$32,337	$33,954	$35,652	$37,435	$39,306
LESS REPLACEMENT EXPENSE	0	$10,155	$10,642	$11,174	$11,732	$12,319	$12,935	$13,582	$14,261	$14,974	$15,723
NET OPERATING INCOME (NOI)	$0	$379,193	$397,185	$417,045	$437,897	$459,792	$482,781	$506,920	$532,266	$558,880	$586,824
Capitalization Rate:		6.75%	7.07%	7.42%	7.79%	8.18%	8.59%	9.02%	9.47%	9.94%	10.44%
LESS PROJECT COSTS	$5,621,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	
PLUS LOANS	3,000,000	3,000,000									
PLUS SALES PROCEEDS											$5,516,144
LESS DEBT REPAYMENT	0	3,000,000									$2,748,671
CF BEFORE DEBT SERVICE	($2,621,601)	$379,193	$397,185	$417,045	$437,897	$459,792	$482,781	$506,920	$532,266	$558,880	$3,354,296
FIXED DEBT SERVICE	$0	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306	$329,306
BEFORE-TAX CASH FLOW	($2,621,601)	$49,886	$67,879	$87,739	$108,591	$130,486	$153,475	$177,614	$202,960	$229,574	$3,024,990
BEFORE-TAX NPV (20%)	($1,413,411)										
BEFORE-TAX IRR	5.63%										
Debt Coverage Ratio		1.15	1.21	1.27	1.33	1.40	1.47	1.54	1.62	1.70	10.19
Cash on Cash (adjusted for ITC)		2.90%	3.95%	5.10%	6.31%	7.59%	8.92%	10.32%	11.80%	13.35%	175.84%

08-Aug-86 proposed tax law

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	0	379,193	397,185	417,045	437,897	459,792	482,781	506,920	532,266	558,880	586,824
DEDUCTABLE EXPENSES											
Less Interest Payments	0	314,291	310,799	308,760	306,495	303,982	301,191	298,092	294,652	290,834	286,594
Less Depreciation	0	143,926	143,926	143,926	143,926	143,926	143,926	143,926	143,926	143,926	143,926
Construction Period:											
Taxes	0										
Interest	0										
Leasing/Mrkting	0										
Legal & accounting	0										
Insurance	0										
Permits	0										
Consultants	0										
Financing Fees:											
Const. Loan Fee	0										
Const. Loan Points	0										
Perm. Loan Fee	0										
Perm. Loan Points	0										
TOTAL DEDUCTIBLE	0	458,217	454,725	452,686	450,421	447,908	445,117	442,018	438,579	434,760	430,520
TAXABLE INCOME (LOSS)	0	(25,000)	(25,000)	(25,000)	(12,525)	11,884	37,665	64,902	93,688	124,120	156,304
ITC	901,320										
TAX SHELTER (PAYMENT)	901,320	6,750	6,750	6,750	3,382	(3,209)	(10,169)	(17,524)	(25,296)	(33,512)	(42,202)
PLUS BTCF	(2,621,601)	49,886	67,879	87,739	108,591	130,486	153,475	177,614	202,960	229,574	3,024,990
Net Sales Price											5,516,144
Basis											
Land											402,500
Building											2,878,521
Unamortized Expenses											
Points											0
Commissions											0
Taxable Gain on Sale											2,235,123
Tax on Sale											603,483
AFTER-TAX CASH FLOW	(1,720,281)	56,636	74,629	94,489	111,972	127,277	143,306	160,091	177,665	196,061	2,379,305
AFTER-TAX ROI		3.29%	4.34%	5.49%	6.51%	7.40%	8.33%	9.31%	10.33%	11.40%	138.31%

NPV@10% (122,016)
IRR 8.90%

file: SHARPEX WORKSHEET FOR PRO-FORMA DEVELOPMENT COSTS
existing tax law
with sharp TAX-EXEMPT FINANCING W/ SHARP SUBSIDY: EXISTING TAX LAW

DATE OF PROJECTION	AUGUST 6, 1986
PROJECT NAME	HAVERHILL HISTORIC REHAB
DEVELOPER	CAMBRIDGE EQUITY ASSOCIATES
ESTIMATED START DATE	JANUARY 1, 1987
CONSTRUCTION PERIOD	12 MONTHS
LOCATION	HAVERHILL MA

PROJECT MIX - GROSS SQUARE FEET			PROJECT CHARACTERISTICS			
Rehab Existing sf	56,340	(48,000 net)	Rental Units:			
New Condominium sf	0		Studio	0		
Retail sf	3,480		One Bedroom	30		
Parking Deck sf	0		Two Bedroom	36		
Parking sf (open)	19,800		Three Bedroom	0	total units:	66
			Parking	66	spaces	
FINANCING:			Retail (net sf)	3062	net sf (88%)	
Tax Exempt Bonds w/SHARP			Condo (net sf)	0	net sf (88%)	

Construction:		Permanent:	
Amount (CL)	5,280,000	Amount (PL)	5,280,000
Rate (CI)	8.00%	Rate (PI)	8.00%
Points(CPT)	2.00%	Points (PPT)	2.00%
Term (CT)	12 months	TERM (PT)	180 months
Average Out (CAV)	50%	Amortization (AM	360 months
		Payment (PDS)	464,913

EXHIBIT 7

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE :

Acquisition Cost	$950,000.00	(25% land)
Site Improvements	$200,000.00	
Parking Land Acq.	$165,000.00	
Construction Costs		
Rental Units	$50.00	per sf
Retail Space	$40.00	per sf
Parking	$10.00	per sf
Consultants	10,000	
Architectural and Engineeri	5.00%	of const.
Legal and Accounting	$45,000	
Permits	$10,000	
Marketing and Leasing	$25,000	
Insurance (const. period)	$10,000	
R.E. Taxes (const. period)	$5,000	
Contingency	10.00%	of const.
Overhead	10.00%	of total

SALE :

Capitalization Rate	10.00%
Sales Expense	6.00%

TAXATION

Ordinary Income	50%
Capital Gains	20%
Depreciation	19 yr. SL
Adjustment to Basis	50% of ITC

HURDLE RATE :

Before Tax	20.00%
After Tax	10.00%

OPERATIONS PHASE :

	Market:	Below market: (17 units)
Studios	N/A per month	N/A per month
One Bedroom	$550.00 per month	$365.00 per month (8)
Two Bedroom	$650.00 per month	$400.00 per month (9)
Three Bedroom	N/A per month	N/A per month
Parking	$25.00 per month	
Retail	$1.00 per sf/month	

GROSS OPERATING INCOME $445,049 per year

VACANCY FACTOR

Leasing Year:	
Retail	10.00%
Residential	5.00%
Stabilized Year	
Retail	10.00%
Residential	5.00%

ANNUAL OPERATING EXPENSES :

Real Estate Taxes	$33,000
Repairs, Maint., Supplies	$12,500
Electricity (common areas)	$7,500
Water & Sewer	$5,000
Insurance	$10,000
Legal & Accounting	$5,000
Payroll (includes taxes)	$15,000
Administrative	$5,000
TOTAL	$93,000.00

MANAGEMENT EXPENSE 5.00% net revenues

GROWTH FACTOR:

Market Rent (IMR)	5.00%
Operating Expenses (IOE)	5.00%

CONVENTION End of Year

EXHIBIT B: PROJECT COST ESTIMATE

PROJECT	Haverhill Mixed Use
CONSTRUCTION START	January 1, 1987
SPACE	

YEAR	1	2		
ACTIVITY	Construction	Leasing		
ITEM COST ESTIMATE			Total Cost	Cost Per Square Foot
Acquisition:				
Buildings	$950,000			$15.88
Parking Land	$165,000			$2.76
Improvements:				
Rental Apartments	$2,817,000			$47.09
Retail	$139,200			$2.33
Parking (open)	$198,000			$3.31
Site Improvements	$200,000			$3.34
Architectural & Engi	$184,481			$3.08
Contingency	$335,420			$5.61
Total Improvements	$3,874,101			$64.76
Consultants	$10,000			$0.17
Legal and Accounting	$45,000			$0.75
Permits	$10,000			$0.17
Marketing & Leasing	$25,000			$0.42
Insurance (const.period)	$25,000			$0.42
R.E. Taxes (const.period)	$5,000			$0.08
Construction Interest	$211,200			$3.53
Construction Loan Points	$105,600			$1.77
Permanent Loan Points	$105,600			$1.77
Development Fee	$487,000			$8.14
Total Soft Costs	$1,029,400			$17.21
TOTAL ESTIMATED COST	$6,018,501			$100.61
ITC BASIS	$4,903,501			
ITC (25%)	$1,225,875			
EQUITY REQUIRED	$0	(adjusted for ITC)		
DEPRECIABLE BASIS	$4,460,663			

08-Aug-86 SHARP w/existing tax law

EXHIBIT D : PROJECTED INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations
GROSS OPERATING INCOME											
Studio Apartments	0	$0									
One Bedroom Apartments	0	$180,240	$189,252	$198,715	$208,650	$219,083	$230,037	$241,539	$253,616	$266,297	$279,611
Two Bedroom Apartments	0	$253,800	$266,490	$279,815	$293,805	$308,495	$323,920	$340,116	$357,122	$374,978	$393,727
Three Bedroom Apartments	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retail Space	0	$36,749	$38,586	$40,516	$42,541	$44,668	$46,902	$49,247	$51,709	$54,295	$57,009
Parking	0	$19,800	$20,790	$21,830	$22,921	$24,067	$25,270	$26,534	$27,861	$29,254	$30,716
TOTAL	0	$490,589	$515,118	$540,874	$567,918	$596,314	$626,129	$657,436	$690,308	$724,823	$761,064
LESS VACANCY ALLOWANCE	0	$25,377	$27,685	$29,069	$30,523	$32,049	$33,652	$35,334	$37,101	$38,956	$40,904
NET REVENUES	0	$465,212	$487,433	$511,805	$537,395	$564,265	$592,478	$622,102	$653,207	$685,867	$720,161
LESS OPERATING EXPENSES	0	$93,000	$97,650	$102,533	$107,659	$113,042	$118,694	$124,629	$130,860	$137,403	$144,274
LESS MANAGEMENT EXPENSE	0	$23,261	$24,372	$25,590	$26,870	$28,213	$29,624	$31,105	$32,660	$34,293	$36,008
LESS REPLACEMENT EXPENSES	0	$9,304	$9,749	$10,236	$10,748	$11,285	$11,850	$12,442	$13,064	$13,717	$14,403
NET OPERATING INCOME (NOI)	$0	$339,647	$355,663	$373,446	$392,118	$411,724	$432,310	$453,926	$476,622	$500,453	$525,476
Capitalization Rate:		5.64%	5.91%	6.20%	6.52%	6.84%	7.18%	7.54%	7.92%	8.32%	8.73%
LESS PROJECT COSTS	$6,018,501	$0	$0	$0	$0	$0	$0	$0	$0	$0	
PLUS LOANS	5,280,000	5,280,000									$5,516,144
PLUS SALES PROCEEDS											$4,631,864
LESS DEBT REPAYMENT	0	5,280,000									
CF BEFORE DEBT SERVICE	($738,501)	$339,647	$355,663	$373,446	$392,118	$411,724	$432,310	$453,926	$476,622	$500,453	$1,409,755
FIXED DEBT SERVICE	$0	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913
BEFORE-TAX CASH FLOW	($738,501)	($125,266)	($109,251)	($91,467)	($72,795)	($53,189)	($32,603)	($10,987)	$11,709	$35,540	$944,842
Developers Fee	$487,000										
SUBSIDY REQUIRED		$171,757	$155,742	$137,959	$119,286	$99,681	$79,094	$57,479	$34,783	$10,951	$0
CASH FLOW w/SUBSIDY	($251,501)	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$944,842
Devel. 6% return		$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090
SHARP Repay		$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$826,716
Total SHARP w/p&i		$140,356	$271,715	$391,858	$499,336	$592,582	$669,904	$729,477	$769,332	$787,349	$0
DEVELOPER'S CASH FLOW	($251,501)	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$118,126
Debt Coverage Ratio		1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	3.03
Before-Tax Cash on Cash		6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	46.97%
Before-Tax NPV (20%)	($142,996)										

08-Aug-86 SHARP w/existing tax law

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	0	339,647	355,663	373,446	392,118	411,724	432,310	453,926	476,622	500,453	525,476
DEDUCTABLE EXPENSES											
Less Interest Payments	0	420,806	413,180	408,887	404,236	399,200	393,746	387,839	381,442	374,514	367,011
Less Depreciation	0	234,772	234,772	234,772	234,772	234,772	234,772	234,772	234,772	234,772	234,772
Construction Period:											
Taxes	500	500	500	500	500	500	500	500	500	500	
Interest	21,120	21,120	21,120	21,120	21,120	21,120	21,120	21,120	21,120	21,120	
Leasing/Mrkting	25,000										
Legal & accounting	45,000										
Insurance	10,000										
Permits	10,000										
Consultants	10,000										
Financing Fees:											
Const. Loan Fee	0										
Const. Loan Points	105,600										
Perm. Loan Fee	0										
Perm. Loan Points	7,040	7,040	7,040	7,040	7,040	7,040	7,040	7,040	7,040	7,040	7,040
TOTAL DEDUCTIBLE	234,260	684,238	676,612	672,318	667,668	662,632	657,178	651,271	644,874	637,946	608,823
TAXABLE INCOME (LOSS)	(234,260)	(344,591)	(320,949)	(298,873)	(275,550)	(250,908)	(224,868)	(197,345)	(168,252)	(137,493)	(83,347)
ITC	1,225,875										
TAX SHELTER (PAYMENT)	1,343,005	172,295	160,475	149,436	137,775	125,454	112,434	98,673	84,126	68,746	41,674
PLUS BTCF	(251,501)	15,090	15,090	15,090	15,090	15,090	15,090	15,090	15,090	15,090	118,126
Net Sales Price											5,516,144
Basis											
Land											402,500
Building											2,112,946
Unamortized Expenses											
Points											28,160
Commissions											0
Taxable Gain on Sale											2,972,538
Tax on Sale											594,508
AFTER-TAX CASH FLOW	1,091,504	187,385	175,565	164,526	152,865	140,544	127,524	113,763	99,216	83,836	(434,708)
AFTER-TAX ROI		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

file: SHARPPRO WORKSHEET FOR PRO-FORMA DEVELOPMENT COSTS
proposed tax law
with sharp TAX-EXEMPT FINANCING W/ SHARP SUBSIDY: PROPOSED TAX LAW

DATE OF PROJECTION	JULY 26,1986
PROJECT NAME	HAVERHILL HISTORIC REHAB
ESTIMATED START DATE	JANUARY 1, 1987
CONSTRUCTION PERIOD	12 MONTHS
LOCATION	HAVERHILL MA

PROJECT MIX - GROSS SQUARE FEET

Rehab Existing sf	56,340	(48,000 net)
New Condominium sf	0	
Retail sf	3,480	
Parking Deck sf	0	
Parking sf (open)	19,800	

PROJECT CHARACTERISTICS

Rental Units:			
Studio	0		
One Bedroom	30		
Two Bedroom	36		
Three Bedroom	0	total units:	66
Parking	66	spaces	
Retail (net sf)	3062	net sf (88%)	
Condo (net sf)	0	net sf (88%)	

FINANCING:
CONVENTIONAL MORTGAGE

Construction:		Permanent:	
Amount (CL)	5,280,000	Amount (PL)	5,280,000
Rate (CI)	8.00%	Rate (PI)	8.00%
Points(CPT)	2.00%	Points (PPT)	2.00%
Term (CT)	12 months	TERM (PT)	180 months
Average Out (CAV)	50%	Amortization (AM	360 months
		Payment (PDS)	464,913

BASIS FOR PROJECTIONS

DEVELOPMENT PHASE :

Acquisition Cost	$950,000.00	(25% land)
Site Improvements	$200,000.00	
Parking Land Acq.	$165,000.00	
Construction Costs		
Rental Units	$50.00	per sf
Retail Space	$40.00	per sf
Parking	$10.00	per sf
Consultants	10,000	
Architectural and Engineeri	5.00%	of const.
Legal and Accounting	$45,000	
Permits	$10,000	
Marketing and Leasing	$25,000	
Insurance (const. period)	$10,000	
R.E. Taxes (const. period)	$5,000	
Contingency	10.00%	of const.
Overhead	10.00%	of total

SALE :

Capitalization Rate	10.00%
Sales Expense	6.00%

TAXATION

Ordinary Income	30%
Capital Gains	30%
Depreciation	30 yr. SL
Adjustment to Basis	100% of ITC

HURDLE RATE :

Before Tax	20.00%
After Tax	10.00%

OPERATIONS PHASE :

	Market:	Below market:
Studios	N/A per month	N/A per month
One Bedroom	$550.00 per month	$365.00 per month
Two Bedroom	$650.00 per month	$400.00 per month
Three Bedroom	N/A per month	N/A per month
Parking	$25.00 per month	
Retail	$1.00 per sf/month	

GROSS OPERATING INCOME $490,589 per year

VACANCY FACTOR

Leasing Year:	
Retail	10.00%
Residential	5.00%
Stabilized Year	
Retail	10.00%
Residential	5.00%

ANNUAL OPERATING EXPENSES :

Real Estate Taxes	$33,000
Repairs,Maint.,Supplies	$12,500
Electricity (common areas)	$7,500
Water & Sewer	$5,000
Insurance	$10,000
Legal & Accounting	$5,000
Payroll (includes taxes)	$15,000
Administrative	$5,000
TOTAL	$93,000.00

MANAGEMENT EXPENSE 5.00% net revenues

GROWTH FACTOR:

Market Rent (IMR)	5.00%
Operating Expenses (IOE)	5.00%

CONVENTION End of Year

EXHIBIT B: PROJECT COST ESTIMATE

PROJECT: Haverhill Mixed Use
CONSTRUCTION START: January 1, 1987
SPACE:

YEAR	1	2		
ACTIVITY	Construction	Leasing		
ITEM COST ESTIMATE			Total Cost	Cost Per Square Foot
Acquisition:				
Buildings	$950,000			
Parking Land	$165,000			
Improvements:				
Rental Apartments	$2,817,000			
Retail	$139,200			
Parking (open)	$198,000			
Site Improvements	$200,000			$3.34
Architectural & Engi	$184,481			$3.08
Contingency	$335,420			$5.61
Total Improvements	$3,874,101			
Consultants	$10,000			$0.17
Legal and Accounting	$45,000			$0.75
Permits	$10,000			$0.17
Marketing & Leasing	$25,000			$0.42
Insurance (const.period)	$25,000			$0.42
R.E. Taxes (const.period)	$5,000			$0.08
Construction Interest	$211,200			$3.53
Construction Loan Points	$105,600			$1.77
Permanent Loan Points	$105,600			$1.77
Development Fee	$487,000			$8.14
Total Soft Costs	$1,029,400			$17.21
TOTAL ESTIMATED COST	$6,018,501			$100.61
ITC BASIS	$4,903,501			
ITC (20%)	$980,700			
EQUITY REQUIRED	$0	(adjusted for ITC)		
DEPRECIABLE BASIS	$4,092,901			

08-Aug-86 sharp: proposed tax law

EXHIBIT D : PROJECTED INCOME AND EXPENSES

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations
GROSS OPERATING INCOME											
Studio Apartments	0	$0									
One Bedroom Apartments	0	$180,240	$189,252	$198,715	$208,650	$219,083	$230,037	$241,539	$253,616	$266,297	$279,611
Two Bedroom Apartments	0	$253,800	$266,490	$279,815	$293,805	$308,495	$323,920	$340,116	$357,122	$374,978	$393,727
Three Bedroom Apartments	0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retail Space	0	$36,749	$38,586	$40,516	$42,541	$44,668	$46,902	$49,247	$51,709	$54,295	$57,009
Parking	0	$19,800	$20,790	$21,830	$22,921	$24,067	$25,270	$26,534	$27,861	$29,254	$30,716
TOTAL	0	$490,589	$515,118	$540,874	$567,918	$596,314	$626,129	$657,436	$690,308	$724,823	$761,064
LESS VACANCY ALLOWANCE	0	$25,377	$27,685	$29,069	$30,523	$32,049	$33,652	$35,334	$37,101	$38,956	$40,904
NET REVENUES	0	$465,212	$487,433	$511,805	$537,395	$564,265	$592,478	$622,102	$653,207	$685,867	$720,161
LESS OPERATING EXPENSES	0	$93,000	$97,650	$102,533	$107,659	$113,042	$118,694	$124,629	$130,860	$137,403	$144,274
LESS MANAGEMENT EXPENSE	0	$23,261	$24,372	$25,590	$26,870	$28,213	$29,624	$31,105	$32,660	$34,293	$36,008
LESS REPLACEMENT EXPENSES	0	$9,304	$9,749	$10,236	$10,748	$11,285	$11,850	$12,442	$13,064	$13,717	$14,403
NET OPERATING INCOME (NOI)	$0	$339,647	$355,663	$373,446	$392,118	$411,724	$432,310	$453,926	$476,622	$500,453	$525,476
Capitalization Rate:		5.64%	5.91%	6.20%	6.52%	6.84%	7.18%	7.54%	7.92%	8.32%	8.73%
LESS PROJECT COSTS	$6,018,501	$0	$0	$0	$0	$0	$0	$0	$0	$0	
PLUS LOANS	5,280,000	5,280,000									
PLUS SALES PROCEEDS											$5,516,144
LESS DEBT REPAYMENT	0	5,280,000									$4,631,864
CF BEFORE DEBT SERVICE	($738,501)	$339,647	$355,663	$373,446	$392,118	$411,724	$432,310	$453,926	$476,622	$500,453	$1,409,755
FIXED DEBT SERVICE	$0	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913	$464,913
BEFORE-TAX CASH FLOW	($738,501)	($125,266)	($109,251)	($91,467)	($72,795)	($53,189)	($32,603)	($10,987)	$11,709	$35,540	$944,842
Developers Fee	$487,000										
SUBSIDY REQUIRED		$171,757	$155,742	$137,959	$119,286	$99,681	$79,094	$57,479	$34,783	$10,951	$0
CASH FLOW w/SUBSIDY	($251,501)	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$46,491	$944,842
Devel. 6% return		$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090
SHARP Repay		$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$31,401	$826,716
Total SHARP w/pli		$140,356	$271,715	$391,858	$499,336	$592,582	$669,904	$729,477	$769,332	$787,349	$0
DEVELOPER'S CASH FLOW	($251,501)	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$15,090	$118,126
Debt Coverage Ratio		1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	3.03
Before-Tax Cash on Cash		6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	46.97%
Before-Tax NPV (20%)	($142,996)										

EXHIBIT E: AFTER TAX ANALYSIS

YEAR	1	2	3	4	5	6	7	8	9	10	11
ACTIVITY	Construction	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Sale
NET OPERATING INCOME	0	339,647	355,663	373,446	392,118	411,724	432,310	453,926	476,622	500,453	525,476
DEDUCTABLE EXPENSES:											
Less Interest Payments	0	420,806	413,180	408,887	404,236	399,200	393,746	387,839	381,442	374,514	367,011
Less Depreciation	0	136,430	136,430	136,430	136,430	136,430	136,430	136,430	136,430	136,430	136,430
Construction Period:											
Taxes	0										
Interest	0										
Leasing/Mrkting	0										
Legal & accounting	0										
Insurance	0										
Permits	0										
Consultants	0										
Financing Fees:											
Const. Loan Fee	0										
Const. Loan Points	0										
Perm. Loan Fee	0										
Perm. Loan Points	0										
TOTAL DEDUCTIBLE	0	557,236	549,610	545,317	540,666	535,630	530,176	524,269	517,872	510,944	503,441
TAXABLE INCOME (LOSS)	(0)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(10,491)	22,035
ITC	980,700										
TAX SHELTER (PAYMENT)	980,700	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	3,147	(6,610)
PLUS BTCF	(251,501)	15,090	15,090	15,090	15,090	15,090	15,090	15,090	15,090	15,090	118,126
Net Sales Price											5,516,144
Basis											
Land											402,500
Building											2,728,601
Unamortized Expenses											
Points											0
Commissions											0
Taxable Gain on Sale											2,385,043
Tax on Sale											715,513
AFTER-TAX CASH FLOW	729,199	22,590	22,590	22,590	22,590	22,590	22,590	22,590	22,590	18,237	(603,997)
AFTER-TAX ROI		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NPV@10%	567,803										
IRR	NA										

NOTES

Chapter 1

1. Interview with Steve Cohen, Cambridge Equity Associates, June 6, 1986.
2. Haverhill Gazette, July 15, 1986.
3. "Profile of Haverhill", Haverhill Chamber of Commerce, 1985.
4. Haverhill Riverfront, Conway School of Landscape Design, 1981.
5. "The Heart of Haverhill", Haverhill Chamber of Commerce, 1984.
6. "National Register of Historic Places", Massachusetts Historical Commission, 1983.
7. "National Register of Historic Places Inventory-Nomination Form: Washington Street Shoe District", 1976.

Chapter 2

1. "Profile of Haverhill", Haverhill Chamber of Commerce, 1985.
2. Ibid.
3. Ibid.
4. Interview with David S. Street, Merrimack Valley Planning Commission, July 25, 1986.
5. Interview with Dr. Howard Hill, June 13, 1986.
6. Interview with Dr. Mike Mallamud, June 12, 1986.
7. Interview with Richard St.Onge, June 12, 1986.
8. Interview with Teresa Kyle, June 11, 1986.
9. Interview with Walter Bart, June 14, 1986.

Chapter 3

1. Federal Income Taxation of Real Estate, Gerald J. Robinson, Warren, Gorham & Lamont, 1985.
2. "Tax Reform Act of 1986 : Provisions Affecting Real Estate Development", Csaplar & Bok, July 14, 1986.
3. Interview with Peter Munkenbeck, Greater Boston Community Development, July 9, 1986.